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(54) **Ironing plane with uniform distribution of the heat**

(57) The invention concerns an ironing plane (1), particularly for an ironing board, with an uniform distribution of the heat, said ironing board providing and under-plane tank (4), a holed upper plane (2) and at least

an electrical heating element (3), said plane (1) being characterised in that it provides a sheet (5), comprised of heat reflecting material, provided between said electrical heating element (3) and said under-plane tank (4).

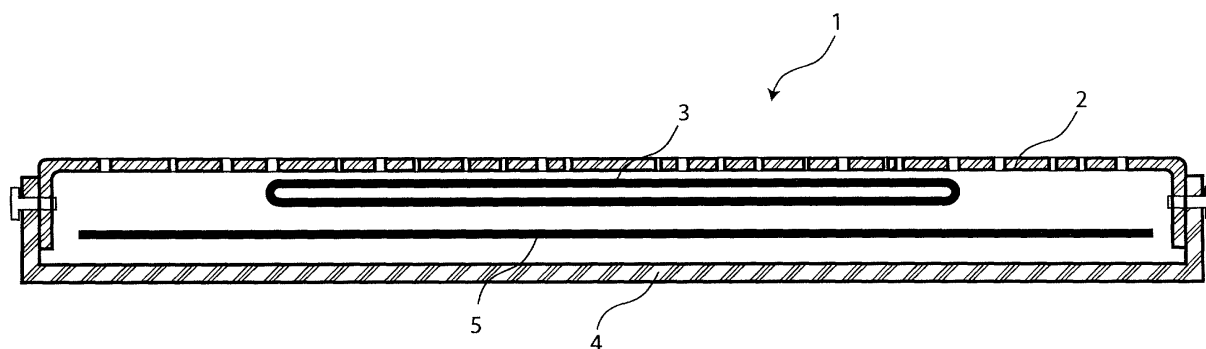


Fig. 2

Description

[0001] The present invention relates to an ironing plane, particularly for an ironing board, with uniform distribution of the heat.

[0002] More specifically, the invention concerns an ironing plane realised in such a way to allow the maximum exploitation of the heat within the same plane.

[0003] At present, different solutions for heating ironing boards provide the introduction of a resistance between the tank of the ironing board and the upper holed plane of the same, said plane being comprised of steel or aluminium.

[0004] However, solutions presently available have some drawbacks and limitations.

[0005] Particularly, we refer to the fact that heat, with presently available solutions, even if well distributed, is mainly localised close to the electrical heating.

[0006] Furthermore, they provide a remarkable dispersion of the heat downward and toward the edges of the ironing board tank, with a consequent reduced efficiency of the ironing plane.

[0007] Furthermore, known solutions provide a close contact between the resistance and the ironing board tank, with possible drawbacks induced by possible deformations of the plastic material.

[0008] In view of the above, the Applicant has realised a solution allowing to solve all the above-mentioned drawbacks, allowing to obtain an optimum distribution of the heat, with the consequent maximum efficiency obtained within the ironing plane.

[0009] Further object of the present invention is that of providing a solution allowing to reduce the load losses and to increase the efficiency that can be obtained.

[0010] It is therefore specific object of the present invention an ironing plane, particularly for an ironing board, with an uniform distribution of the heat, said ironing board providing and under-plane tank, a holed upper plane and at least an electrical heating element, said plane being characterised in that it provides a sheet, comprised of heat reflecting material, provided between said electrical heating element and said under-plane tank.

[0011] Preferably, according to the invention, said sheet is and aluminium sheet.

[0012] Still according to the invention, said under-plane tank can be comprised of plastic material.

[0013] Furthermore, according to the invention, at least electrical heating element can be comprised of at least an electrical resistance.

[0014] Always according to the invention, said ironing plane can be of the steam kind, or of the sucking kind, or of the sucking - blowing kind.

[0015] The present invention will be now described, for illustrative but not limitative purposes, according to its preferred embodiments, with particular reference to the figures of the enclosed drawings, wherein:

figure 1 is a perspective, cut away, view of an ironing plane according to the invention; and

figure 2 is a section view of the ironing plane of figure 1.

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[0016] Observing now the figures of the enclosed drawings, it is shown an ironing plane 1, providing an upper holed plane 2, under which an electrical resistance 3 is provided.

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[0017] All the above elements are included within an under-plane tank 4, comprised of plastic material.

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[0018] Within the ironing plane 1 according to the invention, between the body of the tank 4 and the holed upper plane 2, a lucid aluminium sheet 5 is inserted, said sheet 5 having the same perimeter shape of the inner portion of the tank 4.

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[0019] By the provision of the aluminium sheet 5, it is obtained the effect that the heat emitted from the resistance 3 is conveyed toward the upper part of the ironing plane 1, homogeneously distributing the same all over the surface thanks to the "mirror" effect and thanks to the high thermal conductivity of the aluminium, for example if compared with polymeric materials.

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[0020] Consequently, an increase of the temperature reaching the ironing plane 2 is obtained, as well as a reduced energy consumption required to maintain high and uniform the temperature necessary on the plane to have an optimum ironing.

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[0021] With the aluminium sheet 5 placed as shown in figures 1 and 2, it is further a minor time to reach the wished temperature, which is optimum for a perfect ironing.

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[0022] Further, by the solution according to the present invention, it is reduced the empty volume within the ironing plane 2 and the tank 4, thus obtaining in this way an increase of the efficiency of the heat emitted from the resistance.

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[0023] Aluminium sheet 5 further has an insulating action against the thermal dispersion, dispersion that could occur from the lower surface of the tank. Furthermore, sheet 5 protects tank 4, that is usually comprised of plastic material, against an excessive increase of the temperature.

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[0024] When the plane 1 according to the invention is employed for the steam ironing, thanks to the raising of the temperature obtained by the provision of the sheet 5 within the tank 4, the prevention of the condense that would create within the same tank 4 is obtained.

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[0025] Instead, in case it is a sucking or sucking - blowing ironing board, the solution according to the invention makes it easier the exit - entrance of the air, thus making a convogliamento action of the same air toward the plane hole corresponding to the motor 6 fitting, thus increasing the motor efficiency.

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[0026] Further, the solution according to the invention allows to reduce the load losses and to increase the efficiency that can be obtained.

[0027] The present invention has been described for

illustrative but not limitative purposes, according to its preferred embodiments, but it is to be understood that modifications and/or changes can be introduced by those skilled in the art without departing from the relevant scope as defined in the enclosed claims.

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Claims

1. Ironing plane, particularly for an ironing board, with an uniform distribution of the heat, said ironing board providing and under-plane tank, a holed upper plane and at least an electrical heating element, said plane being **characterised in that** it provides a sheet, comprised of heat reflecting material, provided between said electrical heating element and said under-plane tank. 10 15
2. Ironing plane, particularly for an ironing board, with an uniform distribution of the heat, according to claim 1, **characterised in that** said sheet is and aluminium sheet. 20
3. Ironing plane, particularly for an ironing board, with an uniform distribution of the heat, according to one of the preceding claims, **characterised in that** said under-plane tank is comprised of plastic material. 25
4. Ironing plane, particularly for an ironing board, with an uniform distribution of the heat, according to one of the preceding claims, **characterised in that** said at least electrical heating element is comprised of at least an electrical resistance. 30
5. Ironing plane, particularly for an ironing board, with an uniform distribution of the heat, according to one of the preceding claims, **characterised in that** said ironing plane is of the steam kind, or of the sucking kind, or of the sucking - blowing kind. 35 40
6. Ironing plane, particularly for an ironing board, with an uniform distribution of the heat, according to each one of the preceding claims, substantially as illustrated and described. 45

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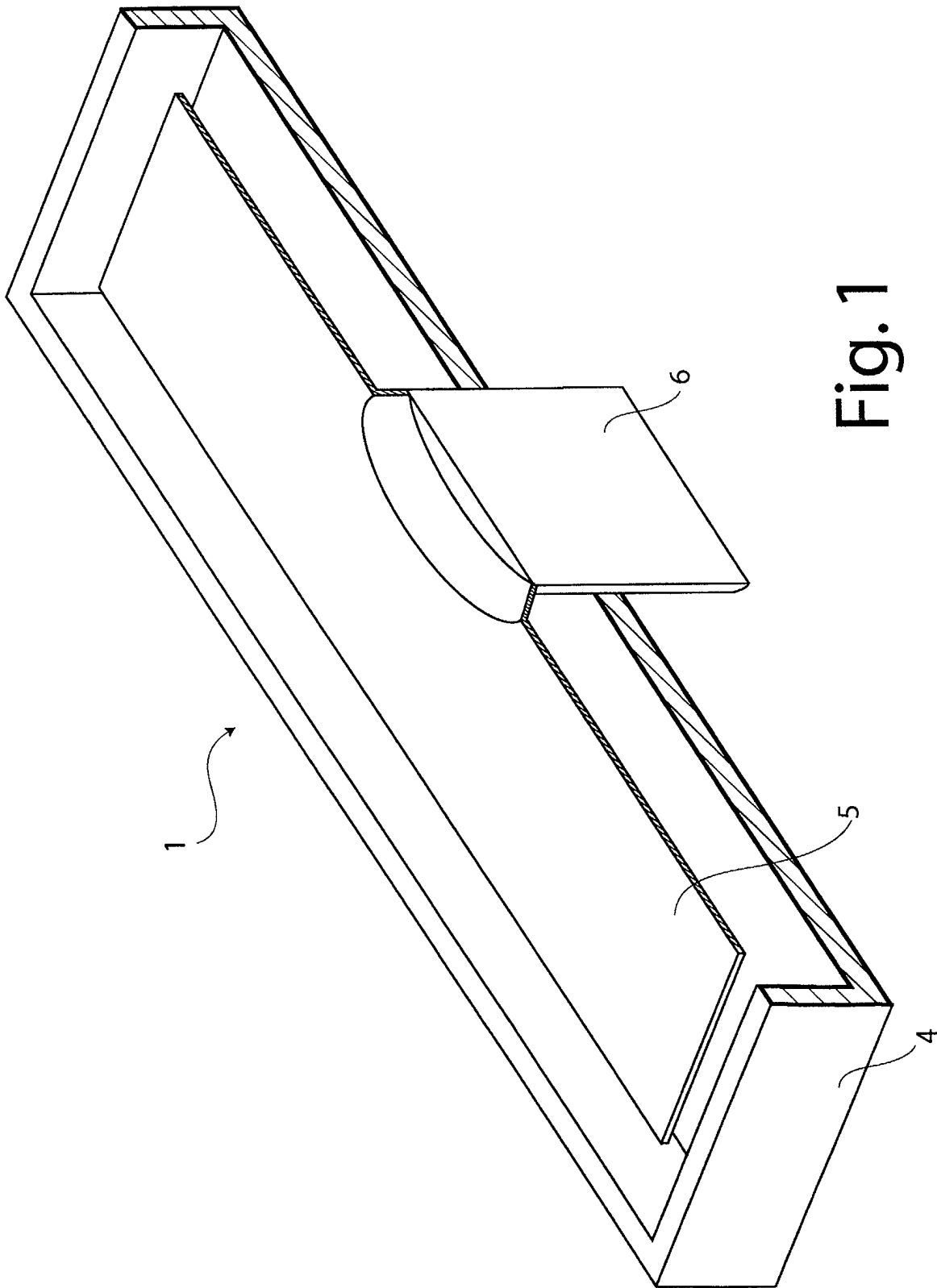


Fig. 1

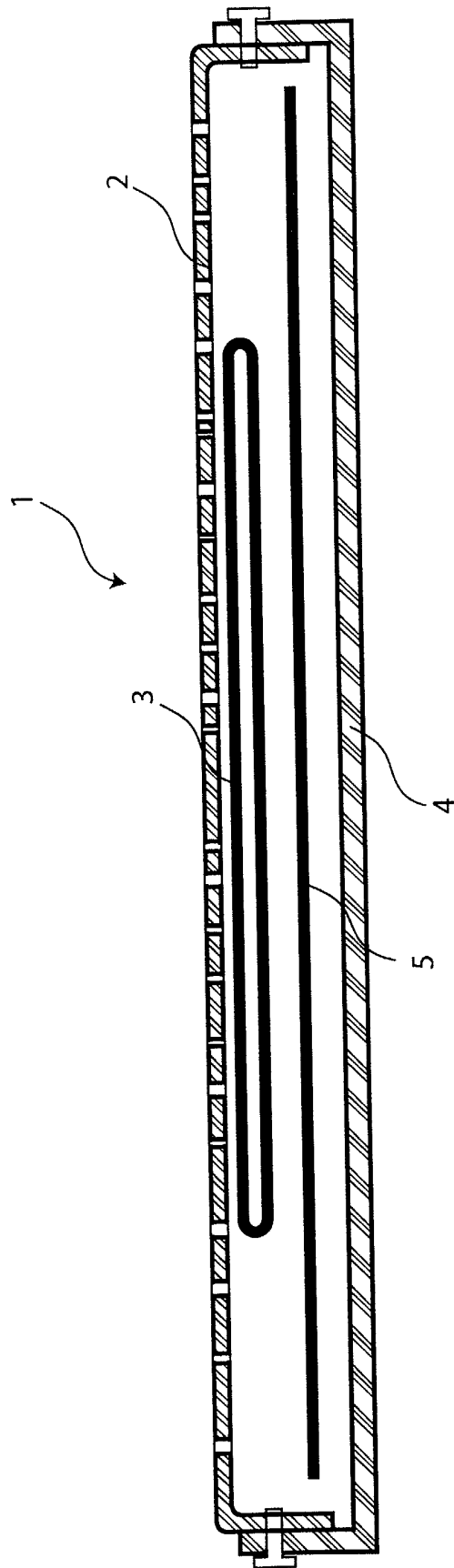


Fig. 2



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EUROPEAN SEARCH REPORT

Application Number
EP 02 42 5281

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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		4 October 2002	Norman, P
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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